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ABSTRACT

The extent of employer-supported education and training in Australia was examined by analyzing data from the Training Expenditure Surveys (TES), which gathered information from firms, and the Surveys of Education and Training Experience (SETE), which gathered information from workers. The TES showed an approximately 10% decline in the hours of external training provided by employers from 1993 to 1996, whereas the SETE showed a more than 80% increase in the hours of employer-supported external training received by workers over a similar period. The different results yielded by the two surveys were attributed to the different definitions of external training in the two surveys and the different behavior of the components of external education and training. The SETE showed a substantial expansion of external training but a decline in the level of employer support for education. However, because the apparent expansion in external training has occurred through an increase in employer support for fees and materials rather than through provision of paid study leave, participation in employer-supported external training may well have increased while the hours of training for which employees are paid by employers has declined. Thus, the findings of TES and SETE do not negate one another. (MN)

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WORKING PAPER No. 41
April 2002

MONASH UNIVERSITY – ACER

CENTRE FOR THE ECONOMICS OF EDUCATION AND TRAINING

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CENTRE FOR THE ECONOMICS OF EDUCATION AND TRAINING

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- framework for performance measures of school completion and transition to work and study;
- the impact of VET research on policy and practice;
- equity and VET;
- models for analysing student flows in higher education and in vocational education; and
- returns to investment in enterprise training.

Abstract

Two sets of surveys provide information about the extent of employer-supported education and training in Australia. The *Training Expenditure Surveys* (the *Expenditure* surveys) are based on information from firms while the *Surveys of Education and Training Experience* (The *Experience* surveys) are based on the responses of workers. Both cover a period from the late 1980s to the mid to late 1990s. The *Expenditure* surveys show a *decline* in the hours of external training provided by employers from 1993 to 1996. In contrast, the *Experience* surveys show a substantial *increase* in the hours of employer-supported external training received by workers over a similar period. This paper attempts to reconcile these findings and to identify the important trends in the provision of firm-based education and training.

Introduction

In the 1993 *Survey of Training and Education* workers reported having participated in an average of 2.2 hours of employer-supported external training courses in a 12 month period. The corresponding value from a survey conducted four years later, the *Survey of Education and Training*, was 4.1 hours -- an increase of over 80%.

Two surveys of firms spanning a similar period show a different trend in the level of provision of external training by employers. The 1993 *Training Expenditure Survey* found that in the period July to September 1993 the mean number of hours of external training provided by employers was 1.96. The corresponding value in 1996 was 1.78 hours -- a decline of about 10%.

Comparisons among the surveys are not straightforward. The information collected on training and the populations changed between the 1993 and 1997 surveys of workers, the target populations and the definitions of external training differ between the survey of firms and workers, and the time periods covered by the two sets of surveys differ slightly.

Results from the surveys lead to different interpretations. The *Experience* surveys suggest a rapid expansion in firm-based training while the *Expenditure* surveys are consistent with a less positive interpretation. This paper investigates the possible sources of the differing trends in the level of the provision of employer-supported external training shown by the surveys of workers and firms. Analysis of the surveys of firms is limited to the reviews of published results. The analysis of the surveys of workers, however, is based on unit record data. Hence, there is a greater focus on identifying the sources of change in the level of training between the 1993 and 1997 surveys of workers.

Firm-based education and training

The need for greater education and training in the workplace has received increasing emphasis over the last few decades. There are several bases for this concern. First, there is the recognition of the role played by human capital in economic growth and of the substantial resources devoted by firms and their employees to skills formation. Workplace learning is part of human capital formation and appears to be associated with high returns. Second, there is a realisation that globalisation and technological change are shifting the occupational structure more towards knowledge-based production processes and that higher levels of skill are required to participate in those processes. Third, a higher rate of economic and organisational change creates the increasing possibility of structural unemployment and the need for individuals to retrain. Fourth, the aging population in most OECD countries means that adjustment to the skills needs of the economy is less likely to be able to be made through initial education. Firm-based education and training is a central component of lifelong learning. Finally, at the policy level, there is concern that the market may not deliver optimal levels of firm-based education and training because of the voluntarist nature of the employer-employee contract. In Australia such concerns found legislative expression in the *Training Guarantee*.

This confluence of interests may have led to the need for firm-based education and training being somewhat overstated. The occupational profile is also expanding in new, relatively unskilled, categories in the sales and service sectors as well as among professional and technical occupations. The rate of occupational transition for individuals may not have

increased as much as has sometimes been thought. The apparently high average returns to training may not be evidence of a shortage of provision. In addition, employers seem to be willing to fund substantial amounts of training. Regardless, education and training plays an important role in production and changes in the level of skills formation in firms is important in itself and may reflect changes in the economy.

The surveys

The Australian Bureau of Statistics (ABS) has conducted two sets of surveys that deal with the provision of training by firms in Australia: The *Surveys of Education and Training Experience* and the *Employer Training Expenditure Surveys*. Given the similarity of their acronyms, in this paper the surveys are referred to as the *Experience* and the *Expenditure* surveys respectively. The *Experience* surveys are based on household samples and focus on the participation in education and training reported by workers. The *Expenditure* surveys are based on samples of firms and report the level of their provision of education and training for their workers. Both sets of surveys cover the period from late 1989 to 1996-97.

The Training Experience Surveys

The ABS has conducted three surveys in the *Experience* series -- *How Workers Get Their Training* (HWGTT) in 1989, *The Survey of Training and Education* (STE) in 1993, and *The Survey of Education in Training* (SET) in 1997. A fourth survey will be conducted in 2001. Results from this series of surveys show changes in the extent of participation in firm-based education and training. In making comparisons between the surveys, however, it is necessary to allow for changes in the scope of the samples and the definition of terms.

The scope of the samples has gradually expanded over time. HWGTT consisted only of persons who had worked as wage or salary earners in the 12 months immediately preceding interview. The STE in addition included persons who were employers, self-employed, unemployed or marginally attached to the labour force at the time of the interview. The SET expanded the scope of the sample further by including persons aged between 15 and 20 who were still at school, persons who studied during the survey year, but who were not in the labour force, persons who worked for payment in kind, and unpaid family helpers.

As far as possible, the values reported in this paper for the *Experience* surveys have been standardised to the 1989 sample in order to facilitate comparisons. Hence the samples consist of persons who were wage and salary earners at any time in the 12 months before interview. None of the samples includes persons from remote areas of Australia (about 1.7% of the population) or persons who were residing in special dwellings such as hotels, hostels, and short-stay caravan parks or in institutions such as hospitals and gaols. Several categories of persons routinely excluded from ABS labour force surveys such as members of the Australian permanent defence forces and certain diplomatic personnel are also excluded from the *Experience* surveys. Additionally, persons aged 15 to 19 and still at school were excluded. Further details of the sample are presented in ABS, 1998.

The *Experience* surveys differ from other ABS labour force surveys in the way in which they distinguish between workers, employers and the self-employed. In most ABS surveys, owners of limited liability companies who work for that company (with or without other workers) are classified as employees -- that is, they are employees of their company. The

Experience surveys, however, treat such persons as either employers or self-employed and they are therefore not included in any of the analyses presented in this paper.

Information in the *Experience* surveys was collected from respondents by personal interview, which should contribute to the quality of the data. The samples on which the results presented in this report are based are relatively large: 16,543, 15,644 and 16,194 for the 1989, 1993 and 1997 samples respectively.

The *Experience* surveys distinguish several forms of employer-supported education and training:

- *Study for an educational qualification* -- enrolment for an educational qualification in the year of the survey. Since the interviews were conducted variously in the period March to May (and the period of fieldwork varied somewhat among the three surveys) the results probably slightly underestimate the incidence of both study for a qualification and the extent to which workers undertake employer-supported study. In the 1989 and 1993 surveys, courses of less than one semester duration were not included in study. In the 1997 survey such courses were identified, but are excluded in the analyses in this paper in order to improve comparability between surveys.

- *Structured training courses* -- defined as activities undertaken in Australia in the 12 months preceding interview primarily to obtain, maintain, or improve work-related skills or competencies. Courses have a structured format and occur during a specifically designated time. Training courses are activities relevant to performance in a current job, promotion in current job, or obtaining a new job. They exclude study, on-the-job training, and attendance at conferences, seminars, workshops where the primary focus was not skill acquisition.

Two basic categories of training courses are identified in the surveys:

In-house training courses, that is, training courses principally conducted for people working for the respondent's employer or business at the time of the course.

External training courses, that is, training courses that were not in-house training courses.

There were major changes in the collection of information about training courses in the 1997 survey. Both the 1989 and 1993 surveys collected information on participation in up to four in-house and four external courses. Where a respondent participated in more than four courses in a given category, the courses that required more time were recorded. Estimates of the hours of training are based on the courses for which information was collected. Where workers undertook more than four in-house or four external courses, the corresponding hours of training will be underestimated -- by about 10% for in-house and 2-3% for external training in the 1993 survey.

The 1997 survey, however, collected information on only the four most recent training courses the respondent had completed in Australia. The change in methodology means that estimates of both the incidence and hours of structured training are likely to be lower for the 1997 survey compared with the two earlier surveys. For estimates of the incidence of training, there may be some 'crowding out' of categories of structured training -- for instance, the external training of a respondent whose four most recent training courses were in-house would not be recorded. Of workers who reported completing at least one training course,

13.6% completed more than four courses. The estimates of the incidence of the various sub-categories of training, however, are unlikely to be affected for all these respondents -- 13.6% is very much an upper bound. The restriction to *completed* training courses and to training courses *in Australia* would similarly tend to reduce estimates of training.

The reduced number of training courses for which information was recorded means that estimates of the hours of training are similarly likely to be lower in the 1997 survey compared with the earlier surveys. The change from recording the *longest* or most important courses to the *most recent* may also tend to produce lower estimates of the hours of training. Similarly, the exclusion of overseas courses may tend to reduce the recorded hours of training. The shift to recording *completed* courses, however, might produce a slight countervailing effect.

- *Unstructured training* --which consists of answers to four questions about informal training activities which the respondent may have done to improve work related skills while working for an employer for wages or salary: Have you done any of these training activities in the last 12 months?

- Asking questions of co-workers/colleagues.
- Teaching yourself.
- Being shown how to do your job.
- Watching others work.

The 1997 survey included *Other* as a response. There were relatively few responses to this category and they are excluded from the estimates presented in this paper.

Table 1 shows the estimates of the incidence and extent of training for the three *Experience* surveys. For the purpose of this paper, the major focus is on the estimates of the hours of employer-supported external training undertaken while working. These estimates are shown in bold. Between the 1993 and 1997 surveys, the mean hours of external training increased by more than 80% from 2.2 hours to 4.1 hours. This is a remarkable increase in itself, and all the more remarkable given that the changes in data collection were likely to bias such estimates downwards.

The mean hours of employer-supported training for all employees increased because both the incidence and the mean hours of training for recipients of training increased -- both the breadth and depth of this form of training increased. The values are shown separately in Table 1. The incidence of employer-supported external training increased from 7.3% in 1993 to 12.2% in 1997 and the mean hours of training per trainee increased slightly from 29.9 to 33.3 hours.

The values in Table 1 show that the increase in employer-supported training occurred against a background of reasonably constant levels of in-house training, a slight decline in study, but a more significant decline in employer-supported study. The values for unstructured training show substantial variability among the three surveys, but generally a decline from 1993 to 1997.

The increase in the hours of external training in 1997 is puzzling in the context of the changes in the collection of information about structured training in that survey. Table 3 separates the

mean number of courses taken by trainees from the hours per course. As expected, the mean measured number of courses for trainees declines between the 1993 and 1997 surveys -- but this is compensated for by an increase in the hours of training per course. Hence the hours of training per trainee for most categories of structured training shown in Table 1 are either maintained or increased.

Comparisons in Table 2 between the results of the 1989 and 1997 surveys, however, show a slightly different story. For most categories of structured training, estimates of the mean number of courses and the mean number of hours per course from the 1997 survey are closer to those from the 1989 survey than to those from the 1993 survey.

The distribution of the hours of structured training is highly skewed to the right -- there are a few employees who undertake many hours of training. The results in Table 3 provide some insight into the distribution of the hours of in-house and employer-supported external training. The values of the medians are consistently substantially below the values of their corresponding means. The greatest discrepancy between the mean and median values is for the hours of in-house training for the 1989 survey. The medians of the 1989 and 1993 surveys are very similar, but the mean for the 1989 survey is substantially higher. The mean for the 1989 survey is strongly influenced by the values for three employees (3442, 2560 and 2136 hours of in-house training), although the upper tail of the distribution is generally thicker for the 1989 survey (22 responses 1000 hours or more) than for either the 1993 survey (2 responses) or the 1997 survey (5 responses). The median for the 1997 survey is substantially lower than for either the 1989 or 1993 surveys -- a tendency that is barely apparent for the means.

The medians for the hours of employer-supported external training shown in Table 3 follow a similar pattern to the means -- the median is highest for the 1989 survey, lowest for the 1993 survey, and the value for the 1997 survey is in-between.

The Training Expenditure Surveys

The ABS has conducted surveys that measure the expenditure by firms on formal training in 1989, 1990, 1993 and 1996. The 1989 survey was of approximately 2000 firms. The later surveys were each of about 6000 firms. Typically a substantial proportion of firms (between 35 and 50%) were common to the samples from survey to survey. The samples are stratified by sector (private/public), industry and size of firm and sample units are optimally allocated among the strata. The only important exclusions from the samples are agriculture (including forestry and hunting and fishing) and the Australian permanent defence forces.

The surveys collect information on formal training for the September quarter of the relevant year. Formal training was defined as training activities that have a structured plan and format designed to develop job related skills and competence. All direct costs related to the training of employees were measured. Firms were notified of their selection in the survey and the survey requirements before the beginning of the September quarter so that they knew the data requirements. They were also supplied with a specimen questionnaire, explanations of the concepts and definitions, and some worksheets to assist with the recording of data. Response rates were typically close to 100%. Further information about the survey design and methodology is contained in the reports of the surveys (ABS, 6353.0).

The reports of the surveys include three measures that allow changes in the extent of training to be monitored:

- The mean hours of training per employee.
- Expenditure on training as a percentage of wages and salaries.
- The percentage of firms that spent some money on training.

The values for these three measures are shown in Table 4. There is a break in the series between the 1993 and 1996 surveys. The 1996 survey collected expenditure data from only those employers who actually provided training in the period July to September 1996. Hence Table 4 contains two entries for the 1993 survey -- the original estimates and estimates recalculated on the basis of the 1996 methodology. The values in Table 4 suggest that the estimates produced by the two approaches often do not differ greatly for hours of training per employee or training expenditure as a percentage of gross wages and salaries.

A decline in either the mean hours of training per employee or training expenditures as a percentage of gross wages and salaries is probably consistent with a decline in total training effort. This need not be the case, however. Training policy has given considerable emphasis to the efficiency of training delivery. A decline in training expenditure or in hours of training per employee could coincide with an increase in total training effort if either the quality of training or efficiency of training delivery have improved. The data required to investigate this possibility, however, are not available.

Table 4 shows that the number of hours of structured training provided by employers fell from 5.55 hours in 1993 to 4.91 hours in 1996 -- a decline of a little over 10%. The decline was marginally greater for in-house training than for external training. The 1996 survey produced the lowest estimates of hours of training of any of the four surveys. Table 4 shows that there seems to have been a consistent decline in the hours of training from 1990.

The decline between 1993 and 1996 in the hours of structured training provided by employers seems to have been concentrated among smaller and medium-sized firms and been driven in the longer term by a substantial decline in the hours of training provided by firms in the public sector.

Expenditure on training as a percentage of wages and salaries also shows a decline of a little over 10% from 1993 to 1996 -- a decline that is almost evenly shared between in-house and external training. In the case of expenditure, however, the change represents a return to the values observed in the 1990 survey, rather than a longer-term trend. The decline between 1993 and 1996 in expenditure on training as a percentage of gross wages and salaries also appears to have been greater among the smaller and medium-sized firms.

Reconciling the *Experience* and the *Expenditure* Surveys

The results for structured training for both the *Experience* and *Expenditure* Surveys differ in both trend and in absolute value. In the *Experience* surveys, between 1993 and 1997 the mean hours of in-house training edged up from 11.9 to 12.4 hours while the mean hours of employer-supported external training grew rapidly from 2.2 hours to 4.1 hours. In contrast, for the *Expenditure* surveys the mean hours of in-house training edged down from an

annualised 14.4 hours to 12.5 hours between 1993 and 1996, while the mean hours of employer-funded external training also declined from 7.8 hours to 7.1 hours.

One tempting interpretation follows from the decision of the ABS to discontinue the *Expenditure* surveys because they impose an extensive respondent burden that has become greater with the demise of the *Training Guarantee*. The *Guarantee* provided firms with an incentive to track their training expenditure, but without that incentive, the extent to which firms keep records of their training provision and expenditure has declined. Hence the decline of structured training observed in the 1996 survey may be no more than an artefact of a failure to adequately record their training activities.

This always remains a possibility. It does not explain, however, the differential trends for in-house training compared with external training -- unless it is more difficult to keep track of expenditure on external training than on in-house training. It seems unlikely that this is the case given that expenditure on external training is more likely to generate an accounting entry, especially for smaller businesses.

The marginal increase in the hours of in-house training in the *Experience* surveys may be somewhat over-stated. The value of 11.9 in-house training hours from the 1993 survey under-estimates the real value because employees who had at any time during the 12 month reference period of the survey also been employees or self-employed were not asked about their participation in training and in the published estimates were assumed to have received no training. This may be offset against the change in methodology in the 1997 survey that probably downwardly biased those estimates.

Two fairly simple reasons go some way towards explaining the apparently different trends for external training in the two surveys. The first is that in the *Expenditure* surveys, no distinction is drawn between study for a qualification and external training -- employer expenditure on an employee's study for a qualification is included as expenditure on external training.

The difference in the definition of external training in the two surveys would not be a problem if study and external training in the *Experience* survey behaved in the same way -- but they do not. The percentage of employees receiving financial support from an employer for their study has declined by about a third from 5.4% in 1993 to 3.6% in 1997.

In trying to reconcile the results of the two surveys, the question remains as to whether the decline in financial support for study could more than offset the rapid increase in the mean hours of external training. Study leave is likely to be very time intensive. Some rough calculations might provide guidance. Assuming that each employee who receives study leave receives four hours per week, and assuming that it is received for say 21 weeks per year (about one and half semesters and remembering that a 'qualification' requires study for at least a semester), the average paid leave is about 84 hours of external training per worker studying for a qualification -- about two and half times the hours of external training per trainee. Hence the countervailing effect provided by a decline of 2 percentage points in study for a qualification is equivalent to about 5%, which is about the same as the increase in participation in employer-supported external training -- from 7.3% to 12.2%. Hence within the *Experience* surveys there is at least some suggestion that the overall level of hours of employer-supported external training may not have increased -- a result that is somewhat closer to the results observed from the *Expenditure* surveys.

There is a second major difference between the measurement of the hours of employer-supported external training in the *Experience* and the *Expenditure* surveys. In the *Expenditure* surveys, an hour of external training is counted only if the employee is being paid for that hour while he or she is attending a training or an education course. In the *Experience* surveys, however, an employee may not be paid for all or even part of that the time. If the employer has paid for (or contributed to) fees, materials, travel costs or accommodation in relation to attendance at that course, the hours of attendance at that course are counted as hours of employer-supported external training, even though the employee may not be paid for those hours.

Various types of employer support for external training and study can be identified in the *Experience* surveys. Table 5 shows these values. The level of detail available has increased over the course of the surveys and categories such as *Travel and accommodation* have been separated from the *Other* category and *Fees* and *Materials* identified separately.

There are two important features of the results presented in Table 5. The first is that, contrary to the general trend, the number of employees who receive paid study leave has declined from 4.7% in 1993 to 4.0% in 1997. The overall increase in the incidence of employer-supported external training has been generated principally by an increase in the extent to which employers pay for fees and materials. Hence it is unlikely that the hours of paid external training, as it is measured in the *Expenditure* surveys, has increased.

The second important feature in Table 5 is the values for paid study leave. The percentage of employees receiving paid study leave has declined by 1.9 percentage points -- from 3.6% in 1993 to 1.7% in 1997. This is slightly more than the overall decline in employer-supported study for a qualification (5.4% to 3.6%) and substantially more in proportional terms.

These two results -- the decline in paid leave for external training and the decline in paid leave for study for a qualification -- indicate that the results from the *Experience* surveys are consistent with those from the *Expenditure* surveys. It is likely that the paid hours of external training has declined between 1993 and 1996-97.

This conclusion could extend to the changes in expenditure on external training. The expansion of participation in external training could be consistent with a decline in overall expenditure if the expenditure per recipient declines. A shift from relatively expensive funding of paid leave to payment for fees and associated course costs as shown in Table 5 might be just such a mechanism. Unfortunately for this explanation, results from the *Expenditure* surveys show that the relative proportions of expenditure on external training attributable to employee time and other costs shifted marginally towards expenditure on employee time between 1993 and 1996. Nevertheless, these data do not address the distribution of such funding among employees and it remains possible that the expansion of hours of external training observed in the *Experience* surveys is funded by reduced employer expenditure per trainee.

It is a little more difficult to reconcile the different trends for in-house training. The *Experience* surveys show a marginal increase in the mean hours of training for all employees from 11.9 (1993) to 12.4 (1997) hours. Even allowing for the non-normal shape of the distribution (a spike at zero hours followed by a skewed positive distribution), it seems unlikely that the difference is statistically significant. On the other hand, the *Expenditure* survey shows a decline from 3.59 hours of in-house training in the 1993 September quarter to

3.13 hours in the 1996 September quarter -- a difference that may well be statistically significant, especially given the overlap of the samples.

It is reasonable to expect that the definition of hours of in-house training in the *Experience* and *Expenditure* surveys correspond more closely than do hours of employer-supported external training. If a worker is undertaking in-house training, the worker is very likely to have their salary paid while they are training. Nevertheless, it is possible that in-house training can be offered outside normal working hours and it may be that an employee is less likely to be paid while undertaking in-house training outside normal working hours. A shift to increased provision of training outside normal working hours would then explain why in-house training marginally increased in the *Experience* surveys while paid hours declined in the *Expenditure* surveys.

The 1993 and 1997 *Experience* surveys collected information on whether in-house training occurred during normal working. The results are presented in Table 6. There is no clear indication that a shift towards greater provision of in-house training outside normal working hours has occurred. It is therefore difficult to explain the difference between the two surveys.

Conclusions

The two major sets of surveys that monitor the level of firm-based education and training in Australia have produced apparently very different results about changes in the level of external training. The different results are a consequence of the different definitions of external training in the two surveys and the different behaviour of the components of external education and training. The *Experience* surveys show a substantial expansion of external training, but a decline in the level of employer support for education. The decline in education might in itself be sufficient to more than offset the apparent expansion in external training.

In addition, however, the apparent expansion in external training has not been through the provision of paid study leave, but through an increase in employer support for fees and materials. Hence participation in employer-supported external training may have increased, while the hours of training for which employees are paid by employers has declined. It is also possible that overall levels of expenditure by firms on the education and training may have declined.

This conclusion does not negate the observation that the hours of external training undertaken by employees have increased. Instead it points to a substantial shift in the way in which external training is funded. Employees are contributing more to external training by not receiving any wages or salary for the hours they spend in training. Employers are increasingly providing incentives to train by contributing to the cost of course fees and materials.

Table 1 Incidence and mean hours of training undertaken in the last 12 months: Persons employed as wage or salary earners in the last 12 months

Categories of training	1989	1993	1997
Incidence of Training (%)			
Any study or training	78.9	85.7	82.6
Any study or structured training	46.6	45.5	54.4
Study in year of survey	14.7	16.2	14.4
Employer-supported	5.6	5.4	3.6
Any training	77.6	84.5	81.4
Structured training	38.8	35.9	47.6
In-house training	34.9	31.3	34.2
External training	9.8	11.8	20.7
While working	9.3	10.6	17.8
Employer supported	6.4	7.3	12.2
Unstructured training	71.8	81.8	74.1
Watching	34.1	44.2	41.3
Being shown	40.6	46.8	40.1
Asking questions	43.5	56.9	53.4
Teaching self	52.2	65.0	58.5
Mean Hours of Training (all employees)			
Structured training	23.0	16.8	23.9
In-house training	18.4	11.9	12.4
External training	4.6	4.9	11.5
While working	3.8	3.4	7.3
Employer supported	**2.3**	**2.2**	**4.1**
Mean Hours of Training (trainees)			
Structured training	59.3	46.8	50.2
In-house training	52.9	37.9	36.3
External training	46.4	41.8	55.4
While working	41.1	31.8	40.9
Employer supported	36.1	29.9	33.3

Notes

1. Source: Confidentialised Unit Record Files (CURFs) of the *Experience* surveys.
2. *Trainees* are persons in receipt of some training.
3. Persons still at school are excluded from the 1997 values.
4. 1997 values omit *other* unstructured training.
5. Values for 1989 and 1993 for external training while working include some few training courses undertaken while employees were working in their own businesses.

Table 2 Distribution of hours of in-house and employer-supported external training: Trainees employed as wage or salary earners in the last 12 months

Hours of . . .	*In-house Training*			*Employer-supported External Training*		
Survey . . .	*1989*	*1993*	*1997*	*1989*	*1993*	*1997*
Maximum	3442.0	1884.0	1266.0	560.0	1050.0	960.0
90%	102.0	79.8	71.1	71.5	61.0	62.0
Third Q'ile	49.8	42.0	35.8	39.5	35.1	35.7
Median	*23.3*	*23.0*	*17.4*	*20.0*	*17.0*	*17.9*
First Q'ile	7.2	7.9	7.3	9.1	7.9	9.2
Minimum	1.0	1.0	1.0	1.0	1.0	1.0

Notes

1. Source: Confidentialised Unit Record Files (CURFs) of the *Experience* surveys.
2. *Trainees* are persons in receipt of some structured training.
3. Persons still at school are excluded from the 1997 values.
4. Values for 1989 and 1993 for external training while working include some few training courses undertaken while employees were working in their own businesses.

Table 3 Number and mean hours of training courses: Persons employed as wage or salary earners in the last 12 months

	1989	1993	1997
All Courses			
Mean number of courses, persons	0.89	0.99	1.02
Mean number of courses, trainees	2.30	2.74	2.14
Mean hours per course	25.75	17.04	23.50
In-house Training Courses			
Mean number of courses, persons	0.74	0.79	0.68
Mean number of courses, trainees	2.13	2.52	2.00
Mean hours per course	24.84	15.05	18.15
External Training Courses			
Mean number of courses, persons	0.15	0.20	0.33
Mean number of courses, trainees	1.54	1.67	1.60
Mean hours per course	30.20	25.03	34.50
While working			
Mean number of courses, persons	0.14	0.18	0.29
Mean number of courses, trainees	1.55	1.70	1.62
Mean hours per course	26.59	18.71	25.22
Employer-supported			
Mean number of courses, persons	0.10	0.12	0.19
Mean number of courses, trainees	1.50	1.67	1.55
Mean hours per course	24.07	17.90	21.56
Not employer-supported			
Mean number of courses, persons	0.05	0.06	0.10
Mean number of courses, trainees	1.46	1.59	1.42
Mean hours per course	31.63	20.34	32.03

Notes

1. Source: CURFs of the *Experience* surveys.
2. *Trainees* are persons in receipt of some training.
3. Persons still at school are excluded from the 1997 values.
4. 1997 values omit other unstructured training.
5. All years exclude study in the current year.
6. Values for 1989 and 1993 for external training while working include some few training courses undertaken while employees were working in their own businesses.

Table 4 Measures of training expenditure of firms by sector and size: All firms, 1989, 1990, 1993 and 1996

Measures of Training Expenditure	1989[1]	1990[2]	1993[3]	1993[4]	1996[4]
Hours of training per employee	5.74	5.92	5.55	5.55	4.91
In-house training	3.7	3.61	3.60	3.59	3.13
External training	2.0	2.31	1.96	1.96	1.78
Size of firm					
1-19 employees	3.30	3.99	4.11	4.11	2.42
20-99 employees	3.40	4.10	5.30	5.30	3.79
100 or more employees	7.30	7.06	6.17	6.17	6.45
Sector					
Private	4.4	4.95	5.03	5.03	4.47
Public	9.2	8.05	6.79	6.79	6.32
Gross wages and salaries (%)	2.2	2.57	2.9	2.86	2.54
In-house training	1.6	1.8	2.0	2.00	1.77
External training	0.6	0.8	0.9	0.86	0.76
Size of firm					
1-19 employees	0.9	1.35	1.7	1.64	1.20
20-99 employees	1.3	1.88	2.7	2.72	1.91
100 or more employees	2.8	3.03	3.2	3.21	3.18
Sector					
Private	1.7	2.22	2.6	2.58	2.30
Public	3.3	3.19	3.4	3.38	3.16
Firms providing structured training (%)	22.1	24.4	24.6	22.62	17.77
Size of firm					
1-19 employees	17.5	18.5	18.0	16.09	13.37
20-99 employees	47.8	64.3	80.3	76.98	50.51
100 or more employees	88.1	93.7	97.9	96.97	88.34
Sector					
Private	21.4	23.6	24.0	22.05	17.32
Public	61.4	72.7	57.5	57.32	58.53

Notes

All values are for the September quarter.

Source

1. ABS, Employer Training Expenditure Australia. July to September 1989 (Cat. No. 6353.0)
2. ABS, Employer Training Expenditure Australia. July to September 1990 (Cat. No. 6353.0)
3. ABS, Employer Training Expenditure Australia. July to September 1993 (Cat. No. 6353.0)
4. ABS, Employer Training Expenditure Australia. July to September 1996 (Cat. No. 6353.0)

Table 5 Types of Employer-Support for Education and Training: Persons employed as wage or salary earners in the last 12 months

	Participation Rate (%)			Composition (%)		
	1989	1993	1997	1989	1993	1997
External training courses	9.3	10.6	17.8	100.0	100.0	100.0
Support from any employer	6.3	7.3	12.2	67.8	68.3	68.2
Support from main period employer for:	6.1	7.1	12.0	65.3	66.7	67.4
Fees & materials	4.7	6.0	10.3	51.1	56.4	57.7
Fees	----	----	10.1	----	----	56.8
Materials	----	----	2.4	----	----	13.6
Paid leave	4.6	4.7	4.0	49.2	44.1	22.7
Travel & accommodation	----	2.6	3.3	----	24.2	18.6
Other	1.0	0.8	0.5	11.3	7.6	2.7
Support from another employer	0.3	0.2	0.2	2.9	2.3	1.1
No support from employer	3.0	2.9	5.6	32.2	31.7	31.8
Study in year of survey	14.7	16.2	14.4	100.0	100.0	100.0
Support from any employer	5.6	5.4	3.6	37.9	33.3	23.4
Support from main period employer for:	5.4	5.2	3.3	36.7	31.9	23.0
Fees & materials	2.8	3.4	2.3	19.1	21.1	15.7
Fees	----	----	2.1	----	----	14.2
Materials	----	----	1.0	----	----	6.9
HECS	----	----	0.4	----	----	3.1
Paid study leave	4.0	3.6	1.7	27.1	22.1	11.5
Travel & accommodation	----	0.8	0.4	----	4.8	2.6
Other	1.0	1.1	0.2	7.1	7.1	1.7
Support from another employer	0.2	0.3	0.1	1.6	1.7	0.5
No support from employer	9.2	10.8	10.8	62.1	66.7	75.2

Notes

1. Source: CURFs of the *Experience* surveys.
2. *Study* excludes courses of less than one semester duration. The 1997 survey found that such courses increased participation from 14.4% to 15.3%. No information was collected on whether or not any employer support was provided for such courses.
3. Values in composition sum to more than 100% because of multiple responses.
4. Persons aged under 20 and still at school are excluded from the 1997 values.
5. 1997 values omit other unstructured training.
6. All years exclude study in the current year.
7. Values for 1989 and 1993 for external training while working include some few training courses undertaken while employees were working in their own businesses.

Table 6 Incidence, extent and timing of in-house training: Persons employed as wage or salary earners in the last 12 months

	1993	1997
Incidence of In-house Training (%)		
All forms	31.3	34.2
During normal working hours only	26.4	29.4
Outside normal working hours only	4.5	5.6
Both during & outside normal working hours	4.0	3.1
Mean Hours of In-house Training (All persons)		
All forms	11.9	12.4
During normal working hours only	9.4	10.0
Outside normal working hours only	0.8	1.0
Both during & outside normal working hours	1.7	1.4
Mean Hours of In-house Training (Trainees)		
All forms	37.9	36.3
During normal working hours only	35.4	34.2
Outside normal working hours only	17.1	17.0
Both during & outside normal working hours	42.8	46.0

Notes

1. Source: CURFs of the *Experience* surveys.
2. *Trainees* are persons in receipt of some training.
3. Persons still at school are excluded from the 1997 values.
4. Corresponding values are not available for 1989.
5. Values for *Incidence* sum to more than the total because individuals could participate in more than one form of training.
6. Values for *Mean hours of in-house training (trainees)* sum to more than the total because they are based on different sub-groups.

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